

ELECTROMECHANICAL FUNCTIONAL MODULE
AND ASSOCIATED PROCESS

ABSTRACT OF THE INVENTION

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An electromechanical functional module and associated process for production thereof, which includes at least one transducer, at least one upper fiber cover layer, which is nonconducting and is positioned over the at least one transducer having a first electrode and a second electrode, at least one lower fiber cover layer, which is nonconducting and is positioned below the at least one transducer, at least one fiber interlayer, which is nonconducting with at least one cut-out for accommodating the at least one transducer, at least one upper electric contract strip that is integrally connected to the at least one upper fiber cover layer and in contact with the first electrode of the at least one transducer, and at least one lower electric contract strip that is integrally connected to the at least one lower fiber cover layer and in contact with the second electrode of the at least one transducer, wherein the at least one upper fiber cover layer, the at least one lower fiber cover layer and the at least one transducer are laminated together.

Lamination can include, but is not limited to, a resin matrix that is injected into the electromechanical functional module under a vacuum.